CECOM
Directorate for Safety

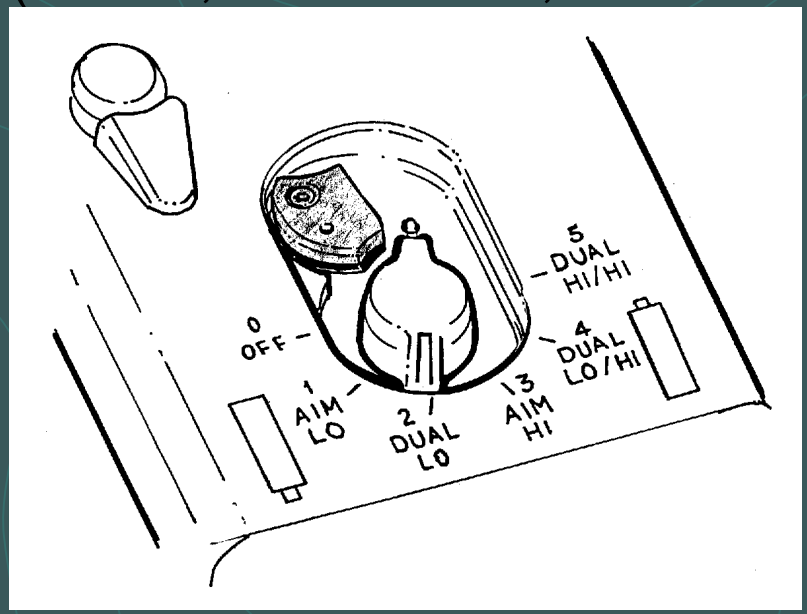
AN/PEQ-2A
Target Pointer Illuminator/Aiming Light (TPIAL)
Safety Overview

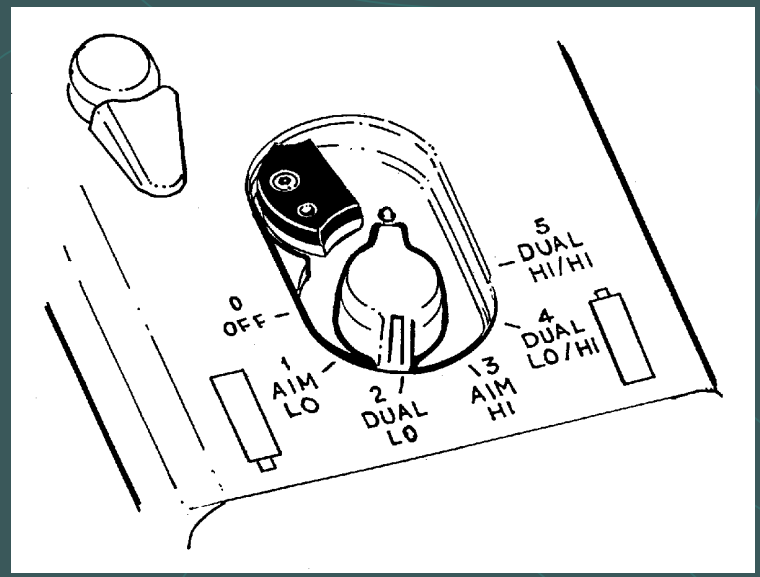
AN/PEQ-2A

AN/PEQ-2A Safety Training

Safety Block Installation

The safety block installed in the ***Training Mode (blue side up)*** prevents the operator from accessing the non-eyesafe modes (AIM HI, DUAL LO/HI, DUAL HI/HI).





AN/PEQ-2A Laser Safety

- Low Power Training Mode – Safety Block Installed
  - Aiming Light Only: Class 1 (eyesafe) – no hazard
  - Illuminator Laser: System is a Class 3a laser.

    At minimum divergence (focused down to the tightest possible beam, ANSI assigns a hazard distance of 25 meters (naked eye) and 160 meters (for 7x optics) to the laser.
- High Power Mode –
  - The PEQ-2A is classified as a Class 3b laser in the high power mode. The laser should not be used for Force-on-Force training in High Power mode. The system has a hazard distance of 220 meters (naked eye) and 1300 meters (for 7x optics) in the High Power Mode.

Laser Safety Classification

- Class 1 (Aim Light; Low Power)
  - Laser is not capable of emitting hazardous radiation under any viewing condition. Often called “eyesafe”.
- Class 3a (Illuminator - Low Power)
  - Laser is not likely to cause injury if viewed with the naked eye; can cause injury if the beam is focused or viewed through magnifying optics (binoculars).
- Class 3b (High Power Mode)
  - Lasers can produce accidental injuries if the beam is viewed ***directly*** or from a ***specular reflection***, even momentarily.

Laser Safety Controls

- Control Measures/Risk Mitigation Factors
  - Class 1 (Aim Light – Low Power)
    - None
  - Class 2 and 3a (Illuminator – Low Power)
    - Personnel should be cautioned not to stare into laser or view with magnifying optics
  - Class 3b (High Power)
    - Safety Block prevents entry into this mode.
    - Eye protection would be required if used.
    - Should not be used for Force-on-Force training

Laser Safety

The Army Center for Health Promotion & Preventive Medicine performed a laser survey of the AN/PEQ-2A. All recommendations have been complied with.

Appropriate warnings are contained in technical manuals

AN/PEQ-2A Safety Training

DANGER
INVISIBLE LASER RADIATION - AVOID DIRECT EXPOSURE TO THE BEAM

- Do not stare into the infrared laser beam.
- Do not look into the infrared laser beam through binoculars or telescopes.
- Do not point the infrared laser beam at mirror like surfaces.
- Do not shine the infrared laser beam into other individuals' eyes.

AN/PEQ-2A Safety Training

Table 1-1 Safety Data

Mode	Training	Tactical
Safety Class	3a	3b
Nominal Ocular Hazard Distance	Dual LO	Aim HI
Unaided eye	**25 meters**	220 meters
Aided (7x50 binoculars)	**160 meters**	1300 meters
Eye Protection Requirements	Dual Lo	Aim Hi
Unaided eye		O.D. 1.7
Aided (7x50 binoculars)		O.D. 1.7

Note: AIM LO mode operates at a Class 1 level.

Hazardous Viewing Distance Explanation

- The AN/PEQ-2A 25-meter hazard distance for the naked eye, and 160-meter hazard distance when viewed using 7X optics are based on several ***worst case assumptions***, including:
  - The illuminator beam is set at minimum divergence (focused down essentially to a pointer), ***and***
  - The beam is held on a sight or persons' eye for > 10 sec, ***and***
  - The person being illuminated with the IR beam is staring at the AN/PEQ-2A location (for > 10 sec, at night, without using NVG's, which would provide eye protection).
- In addition, these hazard distances incorporate a safety factor, IAW standard laser safety practice.
- For these reasons, ***provided operators adhere to the precautions on the following slide***, the use of the AN/PEQ-2A during Force-on-Force exercises is expected to present a ***"Low Risk"***

Bottom Line

The AN/PEQ-2A can be safely used for Force-on-Force training, provided:

- The safety block is installed with the blue side up on each AN/PEQ-2A.
- Each soldier must read and understand the safety warnings on the inside cover of the AN/PEQ-2A operator's manual.

•If the above actions are performed, the use of the AN/PEQ-2A for Force-on-Force training is considered to be Low Risk (Risk Code 3D, Marginal, Remote according to CECOM's Risk Assessment Matrix)

POINT OF CONTACT

James (Jay) Hanrahan

System Safety Engineer
U.S. Army Communications Electronics Command (CECOM)
Directorate for Safety
ATTN: AMSEL-SF
Building 2539, Laboratory Road
Fort Monmouth, New Jersey 07703-5024

DSN 992-0084 ext 6406
(732)532-0084, ext 6406
james.hanrahan@mail1.monmouth.army.mil